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U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE

B/O Form PTO-1390	Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning a Filing Under 35 USC 371	Attorney's Docket Number HAGH3003/JEK
International Application Number PCT/EP00/01273	International Filing Date 16 February 2000	Priority Date Claimed 17 February 1999
Title of Invention PORTABLE DATA SUPPORT WITH A REMOVABLE MINI CHIP CARD		
Applicant(s) for DO/EO/US Yahya HAGHIRI et al.	Assignee	

09/926011

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items under 35 USC 371:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 USC 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 USC 371.
3. ☒ This express request to begin national examination procedures (35 USC 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 USC 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed 35 USC 371(c)(2).
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☒ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 USC 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 USC 371(c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 USC 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 USC 371(c)(4)). (☐ Executed ☒ Unexecuted)
10. ☒ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 USC 371(c)(5)).

Items 11 to 16 below concern other document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information: 1 sheet formal drawing

Application Number (if Known) 09/926011		International Application Number PCT/EP00/01272		Attorney's Docket Number [#] HAGH3001/JEK	
				Calculations	PTO USE ONLY
17. The following fees are submitted: Basic National Fee (37 CFR 1.492(a)(1)-(5)): <input checked="" type="checkbox"/> Search report has been prepared by the EPO or JPO \$860.00 <input type="checkbox"/> International Preliminary Examination Fee paid to USPTO (37 CFR 1.482) \$690.00 <input type="checkbox"/> No International Preliminary Examination Fee paid to USPTO (37 CFR 1.482) but International Search Fee paid to USPTO (37 CFR 1.445(a)(2)) \$710.00 <input type="checkbox"/> Neither International Preliminary Examination Fee (37 CFR 1.482) nor International Search Fee (37 CFR 1.445(a)(2)) paid to USPTO \$1000.00 <input type="checkbox"/> International Preliminary Examination Fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00					
ENTER APPROPRIATE BASIC FEE AMOUNT				\$ 860.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).					
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total Claims	8 -20 =		× \$18.00		
Independent Claims	1 -3 =		× \$80.00		
Multiple Dependent Claims (if applicable)			+ \$270.00		
TOTAL OF ABOVE CALCULATIONS				\$ 270.00	
Reduction by ½ for filing by small entity, if applicable. Small Entity Status is asserted pursuant to 37 CFR 1.27 for this application.					
SUBTOTAL				\$ 1,130.00	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).					
TOTAL NATIONAL FEE				\$ 1,130.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property.					
TOTAL FEES ENCLOSED				\$ 1,130.00	
				Refunded:	
				Charged:	

- a. ☒ A check in the amount of \$ 1,130.00 to cover the fees is enclosed.
- b. ☐ Please charge my Deposit Account Number 02-0200 in the amount of \$ to cover the above fees.
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account Number 02-0200. A duplicate copy of this sheet is enclosed.

Note: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

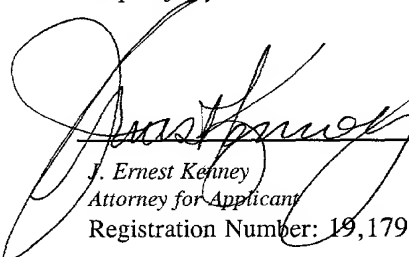


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DATE: 14 August 2001

Respectfully submitted,


 J. Ernest Kehney
 Attorney for Applicant
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

International Patent Application
No. PCT/EP00/01273

PCT/DO/EO/US

International Filing Date: 16 February 2000

Applicant: Yahya HAGHIRI et al.

Attorney Docket: HAGH3003/JEK

For: PORTABLE DATA SUPPORT WITH A REMOVABLE MINI CHIP CARD

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

This paper accompanies documents submitted to establish the U.S. national stage of the above-identified international patent application.

The international patent application was amended under PCT Article 34 and the claims as-amended are annexed to the International Preliminary Examination Report (IPER). A translation of the amended claims has been submitted.

Before calculation of the filing fee and before examination, please amend the application as follows:

IN THE CLAIMS:

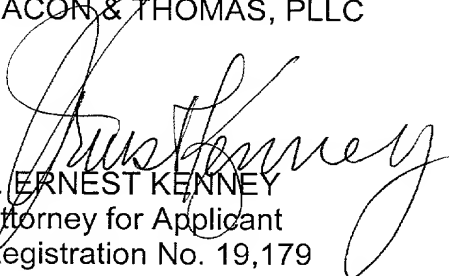
Please amend the translation of claims as annexed to the IPER as shown on the appended APPENDIX OF CLAIMS. Also appended hereto an APPENDIX OF MARKED UP CLAIMS showing the changes which have been made to the article 34 amended claims.

International Application No. PCT/EP00/01273
Attorney Docket: HAGH3003/JEK

REMARKS

All rights are reserved to the original claimed subject matter. The claims have been amended to reduce the filing fees and to better conform to U.S. claim format. Examination of the application as amended is respectfully requested.

Respectfully submitted,
BACON & THOMAS, PLLC


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Date: August 14, 2001

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PATENT TRADEMARK OFFICE

International Application No. PCT/EP00/01273
Attorney Docket: HAGH3003/JEK

APPENDIX OF CLAIMS

1(Amended). A portable data carrier (1) comprising:

a chip module (41) having contact surfaces (4) connected with an integrated circuit of the module, the chip module (41) being disposed in a gap of the card body (1) and held in said gap by means of a detachable adhesive bond, and the chip module (41) further being disposed within a mini smart card (3);

the mini smart card (3) being disposed within a gap of the card body (1) and held therein by means of a detachable adhesive bond.

2(Amended). A portable data carrier according to claim 1, wherein the mini smart card (3) is disposed in a gap of a further mini smart card (2) which is fastened by means of a detachable adhesive bond in a gap of the card body (1) or a gap of at least one further mini smart card.

3(Amended). A portable data carrier according to either of claims 1 and 2, wherein the different mini smart cards (2,3) and the module (41) have different thicknesses.

4(Amended). A portable data carrier according to claim 1 or 2, wherein at least one of the different mini smart cards (2,3) is separated from the remaining card body by a free punch and connected therewith only by at least one card body bar.

5(Amended). A portable data carrier according to claim 1 or 2, wherein at least the bottom of the gap for a mini smart card in the ID-000 format is dimensioned so thin that a removed mini smart card has standard dimensions.



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PATENT TRADEMARK OFFICE

International Application No. PCT/EP00/01273
Attorney Docket: HAGH3003/JEK

APPENDIX OF MARKED-UP VERSION OF CLAIMS

1(Amended). A portable data carrier (1) [with] comprising:

a chip module (41) having contact surfaces (4) connected with an integrated circuit of the module, the chip module (41) being disposed in a gap of the card body (1) and held in said gap by means of a detachable adhesive bond, [characterized in that] and the chip module (41) [is] further being disposed within a mini smart card (3)[,] :

the mini smart card (3) being disposed within a gap of the card body (1) [in which it is] and held therein by means of a detachable adhesive bond.

2(Amended). A portable data carrier according to claim 1, [characterized in that the stated] wherein the mini smart card (3) is disposed in [the] a gap of a further mini smart card (2) which is fastened by means of a detachable adhesive bond in [the] a gap of the [data carrier] card body (1) or [the] a gap of at least one further mini smart card.

3(Amended). A portable data carrier according to either of claims 1 and 2, [characterized in that] wherein the different mini smart cards (2,3) and the module (41) have different thicknesses.

4(Amended). A portable data carrier according to [any of claims 1 to 3, characterized in that] claim 1 or 2, wherein at least one of the different mini smart cards (2,3) is separated from the remaining card body by a free punch and connected therewith only by at least one card body bar.

5(Amended). A portable data carrier according to [any of claims 1 to 3, characterized in that] claim 1 or 2, wherein at least the bottom of the gap for a mini smart card in the ID-000 format is dimensioned so thin that [the] a removed mini smart card has standard dimensions.

[amendment corresponds to p. 2 of German original]

Portable data carrier with a removable mini smart card

The present invention relates to a portable data carrier with at least one removable mini smart card according to the preamble of claim 1.

In known mobile radio systems, for example a GSM mobile radio system, the SIM (subscriber identity module) can be present in two different card formats. Mobile phones intending frequent change of the SIM usually employ the ID-1 card format since the large card simplifies handling during a change. For mobile phones intending a change of SIM only rarely or not at all, or for very small mobile phones, the so-called plug-in SIM in the ID-000 format has become established. In order to make it easier to provide substantially prepersonalized smart cards for mobile radio use, smart cards for mobile radio use are normally provided with a punching permitting the plug-in (mini smart card) to be broken out without much trouble.

From the German print DE-A 40 07 221 it is known to dispose a mini smart card in the ID-000 format in a card with the standard ID-1 format, the mini smart card being surrounded by a punching, i.e. a free punch, with only one or more bars being retained to hold the mini smart card in the card body.

European patent application EP-A 0 495 216 furthermore discloses an ID card with a microprocessor, the microprocessor with its contact surfaces being disposed on a standard smart card (ID-1 format) at the place fixed by the standard. The microprocessor and its contact surfaces are surrounded on three sides by a free punch in the form of a plug-in (mini smart card in the ID-000 format) while the fourth side of the carrier has hinge-like notching.

This makes it possible for the standard card to be used with the plug-in not broken out in mobile radio devices which intend frequent change of the SIM, while the break-out plug-in is used as a "mini smart card" in smaller mobile radio devices or devices usually not intending a change of SIM.

From US-PS 5,581,065 and EP-A 0 869 452 it is known to glue a plug-in in the ID-000 format into the gap of a card body. The plug-in can be detached from the card body for use in a mobile radio device which uses the mini smart card. The advantage of this assembly

is that when the plug-in is taken out no bars remain that might alter the exact placement in the mounting of a mobile radio device.

With increasing miniaturization of mobile radio devices, however, the problem arises that even the mini smart card in the ID-000 format is still too large.

It is therefore the problem of the invention to provide a smart card with a plug-in which permits further reduction in size of the mini smart card, all card formats being reliably separable from each other or it being readily possible to remove the plug-in from the remaining card body, while at the same time plug-in and card body form a stable unit in case the plug-in stays in the remaining card body.

This problem is solved starting out from the features of the preamble of claim 1 by the characterizing features of said claim.

Advantageous embodiments of the invention are stated in the dependent claims.

The basic idea of the invention is that, in particular for very small mobile radio devices, a chip module is disposed in the card body by means of an adhesive bond, the adhesive bond being detachable in order to optionally remove the chip module from the card body. The inventive solution permits the space required for the SIM in the mobile radio device to be reduced to what is absolutely necessary, namely the chip module.

An advantageous embodiment of the invention provides for the chip module to be disposed, for better handling, in a gap of a mini smart card which is smaller than the usual ID-000 format used in mobile radio devices at present.

According to another advantageous embodiment of the invention, it is provided that the reduced mini smart card is disposed again by means of a detachable adhesive bond in the gap of a further mini smart card, for example in the ID-000 format. This permits use in conventional mobile radio devices as well.

In the following, the invention will be explained in more detail with reference to Figs. 1 and 2, in which:

Fig. 1 shows a plan view of the inventive portable data carrier, and

Fig. 2 shows a cross section through said data carrier.

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Fig. 1 shows portable data carrier 1 with mini smart card 2 disposed therein. Said mini smart card can advantageously have the ID-000 format, but larger or smaller ones are of course likewise possible. Within the mini smart card there is further miniaturized plug-in 3. Portable data carrier assembly 1 also contains IC module 41 with contact surfaces 4. Without limiting the generality, card body 1 of Fig. 1 contains plug-ins of different sizes which are each disposed in a gap and glued detachably to the bottom of said gap. Only one of the possibilities shown can of course also be present, for example only one gap with module 41, or a plurality of card sizes can be realized.

Fig. 2 shows schematically a cross section through the portable data carrier assembly. Here, too, one sees the embedding of different mini smart cards 2, 3 and module 41. Module 41 is connected with mini smart card 3 by means of an adhesive bond at the bottom of the gap. The adhesive bond can be produced for example by an adhesive film disposed at the bottom of the gap or on the underside of the module. Such a connection also exists between mini smart card 3 and mini smart card 2, and between mini smart card 2 and portable data carrier assembly 1.

Figs. 1 and 2 show, without limiting the generality, portable data carrier 1 with mini smart cards and a module in altogether three different sizes and thicknesses. It is of course also possible to insert module 41 directly into the gaps of card body 1 which is adapted to the module in terms of size, or to provide further mini smart card formats.

The advantage of the inventive data carrier is that the different plug-ins also have different thicknesses so that the miniaturization relates not only to the horizontal dimensions but also to the vertical ones. In particular for a plug-in size in the ID-000 format one can also use a conventional punching in order to obtain a plug-in conforming to standards.

New Patent claims

1. A portable data carrier (1) with a chip module (41) having contact surfaces (4) connected with an integrated circuit of the module, the chip module (41) being disposed in a gap of the card body (1) and held in said gap by means of a detachable adhesive bond, characterized in that the chip module (41) is disposed within a mini smart card (3), the mini smart card (3) being disposed within a gap of the card body (1) in which it is held by means of a detachable adhesive bond.

2. A portable data carrier according to claim 1, characterized in that the stated mini smart card (3) is disposed in the gap of a further mini smart card (2) which is fastened by means of a detachable adhesive bond in the gap of the data carrier (1) or the gap of at least one further mini smart card.

3. A portable data carrier according to either of claims 1 and 2, characterized in that the different mini smart cards (2, 3) and the module (41) have different thicknesses.

4. A portable data carrier according to any of claims 1 to 3, characterized in that at least one of the different mini smart cards (2, 3) is separated from the remaining card body by a free punch and connected therewith only by at least one bar.

5. A portable data carrier according to any of claims 1 to 3, characterized in that at least the bottom of the gap for a mini smart card in the ID-000 format is so thin that the removed mini smart card has standard dimensions.

FIG.1

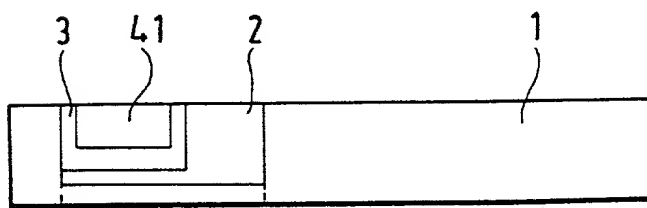
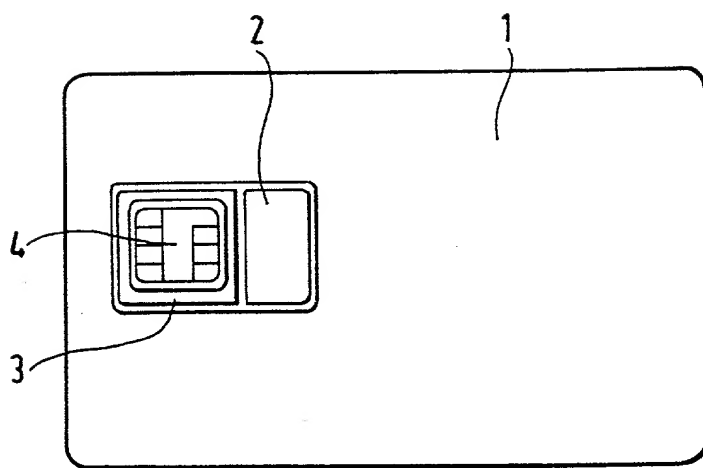


FIG.2

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DECLARATION FOR PATENT APPLICATION AND APPOINTMENT OF ATTORNEY

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention (Design, if applicable) entitled: **PORTABLE DATA SUPPORT WITH A REMOVABLE MINI CHIP CARD** the specification of which (check one):

☐ is attached hereto, or ☒ was filed on: 16 February 2000

as U.S. Application Number or PCT
and (if applicable) was amended on:

International Application Number: (PCT/EP00/01273) 09/926,011

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56. I hereby claim foreign priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN APPLICATION(S)			PRIORITY CLAIMED	
Number	Country	Day/Month/Year Filed	Yes	No
199 06 570.5	Germany	17 February 1999	X	

☐ Additional Priority Application(s) Listed on Following Page(s)

I HEREBY CLAIM THE BENEFIT UNDER TITLE 35 U.S. CODE §119(E) OF ANY U.S. PROVISIONAL APPLICATIONS LISTED BELOW.

Application Number	Day/Month/Year Filed

☐ Additional Provisional Application(s) Listed on Following Page(s)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating The United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application:

Application Number	Filing Date	Status - Patented, Pending or Abandoned

☐ Additional US/PCT Priority Application(s) listed on Following Page(s)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: I (We) hereby appoint as my (our) attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: J. Ernest Kenney, Reg. No. 19,179; Eugene Mar, Reg. No. 25,893; Richard E. Fichter, Reg. No. 26,382; Thomas J. Moore, Reg. No. 28,974; Joseph DeBenedictis, Reg. No. 28,502; Benjamin E. Urcia, Reg. No. 33,805; and

I (we) authorize my (our) attorneys to accept and follow instructions from Klunker Schmitt-Nilson Hirsch regarding any matter related to the preparation, examination, grant and maintenance of this application, any continuation, continuation-in-part or divisional based thereon, and any patent resulting therefrom, until I (we) or my (our) assigns withdraw this authorization in writing.

Send correspondence to:



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FULL NAME OF FIRST OR SOLE INVENTOR <u>1-00 Yahya HAGHIRI</u>	CITIZENSHIP Iran <u>IRX</u>
RESIDENCE ADDRESS Winzererstrasse 98, D-80797 Munchen, Germany	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW Touba HAGHIRI as heir of Yahya HAGHIRI
DATE <u>1st February 2002</u>	SIGNATURE <u>Touba Haghiri</u>

☒ See following page(s) for additional joint inventors.

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CONTINUATION OF DECLARATION FOR PATENT APPLICATION AND APPOINTMENT OF ATTORNEY

Page 2

PRIOR FOREIGN APPLICATION(S) (35 USC §119)			PRIORITY CLAIMED	
Number	Country	Day/Month/Year Filed	Yes	No

PRIOR PROVISIONAL APPLICATIONS 35 U.S. CODE §119(E)	
Application Number	Day/Month/Year Filed

PRIOR U.S. OR PCT INTERNATIONAL APPLICATIONS (35 U.S. CODE §120)		
Application Number	Filing Date	Status - Patented, Pending or Abandoned

FULL NAME OF JOINT INVENTOR	CITIZENSHIP German
RESIDENCE ADDRESS Winzererstrasse 98, D-80797 München, Germany	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW Szahra HAGHIRI as heir of Yahya HAGHIRI
DATE 1st February 2002	SIGNATURE <i>Szahra Haghiri</i>

FULL NAME OF JOINT INVENTOR	CITIZENSHIP German
RESIDENCE ADDRESS Winzererstrasse 98, D-80797 München, Germany	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW Mana HAGHIRI as heir of Yahya HAGHIRI
DATE 1st February 2002	SIGNATURE <i>Mana Haghiri</i>

FULL NAME OF JOINT INVENTOR	CITIZENSHIP Iran
RESIDENCE ADDRESS Winzererstrasse 98, D-80797 München, Germany	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW Touba HAGHIRI as parent of Sina HAGHIRI who is a minor and a heir of Yahya HAGHIRI
DATE 1st February	SIGNATURE <i>Touba Haghiri</i>

FULL NAME OF JOINT INVENTOR 2-06 Renee-Lucia BARAK	CITIZENSHIP Germany <i>DEX</i>
RESIDENCE ADDRESS Säulenstrasse 2, D-82008 Unterhaching, Germany	POST OFFICE ADDRESS IS THE SAME AS RESIDENCE ADDRESS UNLESS OTHERWISE SHOWN BELOW
DATE 02/05/2002	SIGNATURE <i>Renee-Lucia Barak</i>

☐ See following pages for additional joint inventors/priority applications.